

Form Follows Function: Sixty Years of Army Force Generation and Structure

**A Monograph
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Abstract

Form Follows Function: Sixty Years of Army Force Generation and Structure by Lieutenant Colonel Timothy R. Frambes, United States Army, 50 pages.

Extending from the Cold War through the current Era of Persistent Conflict, the Army implemented a number of force structure changes in response to the existing and predicted strategic environment. Similar to the architectural standard phrase that “Form Follows Function,” Army force structure and force generating processes each represent a form evolved over time to satisfy the function of projecting military strength. The current Army process of force generation, termed ARFORGEN, serves as the model and process through which conventional Army combat forces are trained, resourced, and certified for global deployment under the Global Force Management processes defined by the National Military Strategy, all within a constrained environment of military end strength limitations, the All-Volunteer Force, and competing combatant command requirements. While still in development and lacking definitive codification, ARFORGEN remains the current U. S. Army force generation methodology to provide ground combat forces to the Joint Force Provider (U. S. Joint Forces Command) in response to regional combatant command requests for forces to support theater strategies and contingencies.

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Introduction

“...form ever follows function, and this is the law”—Louis H. Sullivan, American architect, 1896¹

The primary mission of the Army is to fight and win the nation’s wars.² The requirement to mobilize, train, and employ Army combat forces capable of accomplishing that mission resulted in a variety of models throughout the twentieth century. Concurrent to a specific organizational structure, a strategy for equipping, manning, training, and deployment also evolved. Experiential evolution beginning with the mass mobilization of military-aged American men to build an Army for service in World War I, through the practice of forward-stationed and Return of Forces to Germany (REFORGER) defense strategy of the Cold War, the Army continued to discern the requisite operational combat force and a specific strategy for each organization to fight effectively. Advances in technology and changes in the conduct of warfare encompassing nuclear weapon development, the regional conflicts in Korea and Vietnam, and lessons learned after the Arab-Israeli wars significantly influenced the development and application of U. S. Army forces during the last sixty years. Structural experiments such as the Pentomic divisional design, the Reorganization Objective Army Division (ROAD) structure, and Army-86 formations, in combination with bold doctrinal changes such as AirLand Battle in 1982, collectively influenced the Army of Excellence structure in use at the beginning of the twenty-first century.

¹ Louis H. Sullivan, influential American architect in his article “The Tall Office Building Artistically Considered,” *Lippincott’s Magazine*, March 1896, available online at <http://academics.triton.edu/faculty/fheitzman/tallofficebuilding.html>, accessed 11 April 2010. It is from Sullivan’s article that the phrase “Form Follows Function” was born.

² Department of the Army, Field Manual 7-0, *Training for Full Spectrum Operations*, 12 December 2008, page 1-1.

Shortly after the conclusion of World War II, Army leaders sought to create an organizational force structure capable of meeting the requirement to deploy effective fighting forces from the continental United States to join forward-stationed forces occupying distant outposts in Europe and Asia in response to strategic conditions of the Cold War. While remaining strategically flexible to protect America's interests, the impetus of U. S. Army force generation operations sought to assemble ground combat forces rapidly and project them worldwide—a function requiring some form in which to be successful. The operational form of the ground combat forces deployed for action during the late twentieth century were echelons divided into corps commanding divisions, and divisions commanding brigades. Inside brigades, battalions of generally like-type forces conducted battle, but the basic command and control formation for executing the myriad functions of organizing, training, and deploying combat power stood at the divisional echelon for conventional Army forces during the late twentieth century. Once Army ground combat units deployed, the committed corps, divisions, and brigades were obligated to the theater of action until the end of the conflict, relying on a linear supply-and-demand replacement system to generate personnel and equipment to fill the ranks and replace materiel lost by those engaged corps, divisions, and brigades. The linear supply-and-demand model may be rightly labeled a twentieth century model in response to conflict, serving as a standard for marshalling men and materiel beginning with America's involvement from World War I through the initial stages of the current wars in Afghanistan and Iraq. The function of employing combat power in the form of divisions—obligated in a quantity of numbered formations for indeterminate durations—required the linear model to project conscripted men and war materiel from the United States to a given contingency area. The limitations of an All-Volunteer Force and the congressionally approved size of Active, Reserve, and Army National Guard forces challenged the sustainability of the divisional force structure model once the United States entered into a conflict of indeterminate length.

Within two years of the first deployment of conventional Army forces to Afghanistan, the duration of combat there and simultaneously in Iraq precipitated a change in how the Army exercised force generation in response to America's conflicts. A generation of military leaders had become conditioned to swift action followed by equally swift return of ground forces through experiences in Lebanon, Grenada, Panama, and Operations Desert Shield / Desert Storm from 1982 through 1991. Each of the military deployments during this period occurred while American armed forces maintained significant presence in Europe and Asia. Although continuous American commitment to the Balkans seems anomalous to the trend, the relatively smaller number of forces required for the Balkan missions placed less pressure on the ten-division active Army in 2001.³ American military action in Afghanistan began in November 2001 as United States Special Operations Forces were covertly inserted to join indigenous anti-Taliban fighters.⁴ Shortly after special operations teams entered Afghanistan, conventional Army and Marine Corps ground forces participated in the larger military effort termed Operation Enduring Freedom. Less than eighteen months later, United States military and a coalition of allied forces assembled in Kuwait prior to Operation Iraqi Freedom, the March 2003 invasion of Iraq. The two conflicts, Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF) in Iraq, marked the largest military commitment from the United States since the Vietnam War and the first two-theater war for the nation since World War II. This new two-theater war became a significant test of the All-Volunteer force. By the end of 2003, the contentious number of initial invasion, follow-on, and stabilization conventional Army forces deployed to Iraq posed a

³ Chapter 1, 1997 Army Posture Statement, available at <http://www.army.mil/aps/97/ch1.htm>, summarizes the Army's drawdown between 1989 and 1997 from 18 active divisions to 10, a number maintained through 2003 when departing Army Chief of Staff General Eric K. Shinseki warned to "beware the 12-division strategy for a 10-division Army." Shinseki speech available at <http://www.army.mil/features/ShinsekiFarewell/farewellremarks.htm>, accessed 18 March 2010.

⁴ Condensed narrative of U. S. Army Special Forces Captain Jason Amerine, commanding Operational Detachment Alpha (ODA) 574, assigned to assist Hamid Karzai secure position against Taliban-controlled Afghanistan, available online at <http://www.stripes.com/07/jun07/heroesweb/amerine.htm>, accessed 7 April 2010.

challenge for military leaders to address.⁵ U. S. Army forces deploying from the United States, Europe, and Korea replaced initial invasion forces, allowing those units to redeploy to their home stations after twelve to fifteen months in Iraq. Active and Reserve Component Army divisions and separate brigades conditioned to a system of train-alert-deploy implemented a rotation cycle exchanging combat-tested formations with units recently mobilized or alerted for deployment to support military operations in Afghanistan and Iraq.

As the nation navigated the early years of the current conflict, the legacy of a late twentieth century linear phased model served to anchor contingency planning and force management processes predicated on a number of procedural assumptions. The U. S. Army Forces Command (FORSCOM) Conventional Force Generation Model balanced planning on a tiered readiness model of Army forces, Active and Reserve Component, sequentially trained, alerted, mobilized, and deployed in response to a given contingency. Mobilization activities extending in range from no mobilization, partial, and full-mobilization integrated into the tiered readiness design and sequential deployment processes. Associated by severity of any given contingency, mobilization plans outlined procedures designed to call forces from one or more of four force pools: 1) the Major Contingency Response Force, 2) the Rapid Regional Response Force, 3) the Reinforcing Force, and finally, 4) the Strategic Reserve. Each of the four pools within the Conventional Force Generation Model was associated to a number of Army corps, divisions, and brigade- or regiment-sized formation⁶ (see Figure 1). Initial response to a contingency typically relied on active component forces from the Major Contingency Response

⁵ Michael E. O'Hanlon, Brookings Senior Fellow, "Shinseki vs. Wolfowitz," originally published in *The Washington Times*, 4 March 2003, at http://www.brookings.edu/opinions/2003/0304iraq_ohanlon.aspx, verified 30 March 2010. O'Hanlon cites pre-invasion testimony by Army Chief of Staff General Eric Shinseki, pressed to number the total force requirement in Iraq. General Shinseki reluctantly acknowledged the number of forces following the invasion would be approximate to the number of the initial invasion, prompting swift rebuttal from Deputy Secretary of Defense Paul Wolfowitz as "way too high."

⁶ Department of the Army, FORSCOM G-3/5/7 Plans (ARFORGEN Branch) brief prepared for III Corps Plans, "ARFORGEN Overview," LTC Jeff Hannon, dated as of 10 DEC 09, notes and slide 5. Hereafter cited as ARFORGEN Overview and slide referenced.

Force, with increasing significance and resources requiring the a more expansive mobilization and commitment of additional forces that, in a worst-case scenario, would require the activation and commitment of the nation's Strategic Reserve. Under this model, Reserve Component forces could expect one-time mobilization orders for the duration of a given contingency, plus six months.

The flaw perceptible in late 2003 and early 2004 to activated reservists and others is that the model assumes understanding and foreknowledge of the conclusion to any given contingency. Forecasting the end of any operation is difficult in the best of circumstances, but it proves particularly challenging when Reserve Component soldiers seek clarity concerning military service obligations and civil employment. Despite the flaw, the Conventional Force Generation Model remained in use through 2006 as reserve component forces received mobilization orders for contingencies initially in support of homeland defense, then for operations in Afghanistan and Iraq as those conflicts imparted increased demand based upon national strategic goals.⁷ The nature of the Army's commitments to Afghanistan, Iraq, and homeland defense between 11 September 2001 and June 2003 provoked reexamination of the base assumptions resident in the Conventional Force Generation Model. The function of commanding, controlling, and conducting military operations remained unchanged, but the form of the echelon most responsive to deployment and sustainability in a conflict of indeterminate length by a force of limited size required examination.

⁷ Operation Noble Eagle is the named operation for homeland defense in response to the terrorist attacks of 11 September 2001.

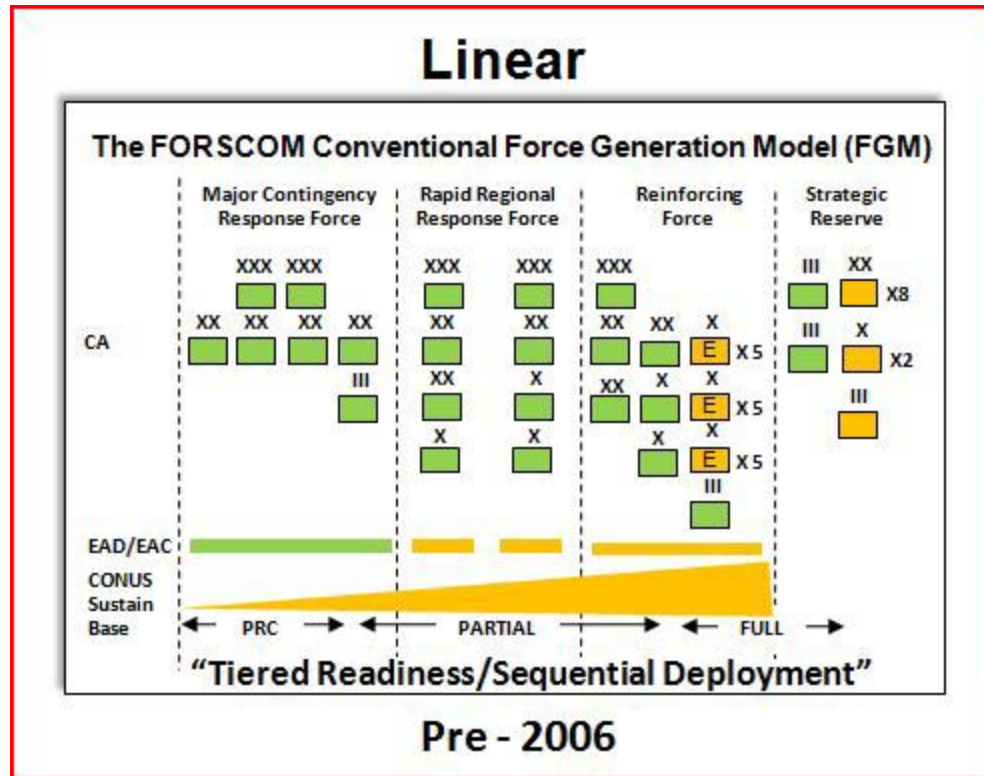


Figure 1--Linear Conventional Force Generation Model showing response force pools. Green represents active component forces and yellow represents reserve component forces.⁸

Recognizing in June 2003 that the number of missions requiring Army ground forces had exceeded the capacity of the force structure available to meet the demand, departing Army Chief of Staff General Eric K. Shinseki advised Secretary of Defense Donald Rumsfeld that the force structure must be reconsidered in view of the “long-term commitments,” combined with Operation Enduring Freedom, Operation Iraqi Freedom, and other contingencies.⁹ The Army Chief of Staff clearly linked force structure decisions to the strategic calculations driving America’s commitments across the globe and found fault with the “1-4-2-1” calculation

⁸ Figure derived from FORSCOM ARFORGEN Overview, slide 5.

⁹ Memorandum for Secretary of Defense, Subject: End of Tour Memorandum, 10 June 2003, by General Eric K. Shinseki, 34th Army Chief of Staff, retrieved online from *Washington Post* at <http://media.washingtonpost.com/wp-srv/opinions/documents/shinseki.pdf>, page 8.

determined in the emergent 2004 National Military Strategy.¹⁰ General Shinseki further addressed the challenge of emerging rotation policies for Army forces in terms of months at home compared with months deployed. General Shinseki outlined the Army's analysis of three-to-one versus a Department of Defense objective of five-to-one advising, "[u]nless commitments are reduced, The Army [sic] cannot maintain both a coherent rotation policy and the requisite force and readiness levels to respond to unanticipated major crises with our current end strength and force structure."¹¹ Through 2003 and 2004, the demands placed on the military challenged the strategic planning assumptions that, in turn, determined the structure of the force and the efficacy of rotation policies implemented to sustain the requisite combat power in each of the active theaters in Afghanistan and Iraq. Prescient as General Shinseki's advice to the Secretary of Defense appears now, it would take experiment and growth through application over a period of years before the Army would arrive at a flexible, systematic force generation process seeking synchronicity with changing strategic and operational demands. The Army Force Generation (ARFORGEN) process now in practice, yet still under development, seeks to be that systematic method of force generation and synchronicity that seeks to satisfy the plethora of demands in an era of persistent conflict.

¹⁰ Part IV "Force Design and Size," *The National Military Strategy of the United States of America: A Strategy for Today; A Vision for Tomorrow*, General Richard B. Meyers, Chairman of the Joint Chiefs of Staff, Washington, D.C., 2004, 21. Regarding the "1-4-2-1" metric, "The NDS directs a force sized to defend the homeland [1], deter forward in and from four regions [4], and conduct two, overlapping "swift defeat" campaigns [2]. Even when committed to a limited number of lesser contingencies, the force must be able to "win decisively" in one of the two campaigns [1].

¹¹ Shinseki End of Tour Memorandum, page 8-9. Stylistically, General Shinseki preferred use of *The Army* when referring to the organization in correspondence and written guidance. The stylistic choice remains unchanged in the quotation selected above.

Literature Review

Resources

Louis H. Sullivan's "Form Follows Function" dictum found in Klaus Krippendorff's *The Semantic Turn: A New Foundation for Design Enquiry*, attributes the design profession's anchoring the principle found in Sullivan's architectural outline for tall office buildings. Krippendorff's work provides two critical evaluation criteria definitions used in this Army force generation and structure study. The first, *modular design*, defined as "systems of relatively standard or separately developable components that could be recombined into new products that differed mainly in their arrangement,"¹² applies directly to the structure of modular Army Brigade Combat Teams organized since 2004. The second key definition for framing the study of the Army Force Generation process is Krippendorff's citation of Louis H. Sullivan's 1896 article "The Tall Office Building Artistically Considered."¹³ Sullivan describes the function of a tall office building in three parts, associated with a beginning, middle, and end, but also artistically stylized for aesthetic functionality at ground level, utilitarian functionality in office space, and support functionality for the aesthetic and utilitarian functions. The *form* to support and enable the functions required the building to be tall in order to maximize the available space limitations of the environment. Sullivan's ideas of limited resources and three-part functionality within the structure of a form apply to Army force structure and the force generating process developed since 2004.

Army force structure, force design, and threat perception are interdependent components of military conventional wisdom that influence evolutions in structure and doctrine as structure

¹² Klaus Krippendorff, *The Semantic Turn: A New Foundation for Design Enquiry* (Boca Raton: CRC Press, 2006), 17.

¹³ Louis H. Sullivan, "The Tall Office Building Artistically Considered," *Lippincott's Magazine*, March 1896, <http://academics.triton.edu/faculty/fheitzman/tallofficebuilding.html>, accessed 11 April 2010.

and doctrine relate to national security strategy. A thorough history of Army structure that notes the influence of doctrine and emergent threat relationships on the Army's basic units of employment from brigade, division, and corps formations are found in *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades* by John B. Wilson of the U.S. Army Center of Military History.

Working from the bottom toward the top of the United States military hierarchy, an understanding of the current and recent past guiding principles affecting Army force structure and programs, examination of the series of Army Posture Statements available from 1997 through 2010 provides an indication of the Secretaries of the Army's developing answers to the strategic and operational environment. Submitted under both signatures of the Secretary and Chief of Staff of the Army, the annual Army Posture Statement essentially serves as a "State of the Army" report to the United States Congress as mandated by law.¹⁴ The Army Posture Statement is an unclassified annual summary of the Army's activities, jointly delivered to reinforce the testimony presented to Congress by the Secretary of the Army and the Chief of Staff, Army, and to gain the resources and support required to accomplish the Army's mission during a projected fiscal year.

¹⁵ Comparison of the most recent Army Posture Statements with the *Joint Operational Environment 2008 (JOE 2008)* and companion *Capstone Concept for Joint Operations: Version 3.0*, dated 15 January 2009, each published by the U. S. Joint Forces Command (JFCOM), afford the opportunity to link Army initiatives with Joint and Department of Defense requirements found in the National Military Strategy provided by the Chairman of the Joint Chiefs of Staff. Combined, these important publications provide links or expose gaps between the guiding

¹⁴The annual requirement to provide Congress with the Army Posture Statement is attributed as a requirement of the National Defense Authorization Act for Fiscal Year 1994, referenced at <http://www.army.mil/info/institution/posturestatement/>, accessed 10 March 2010.

¹⁵ Front matter to the 2006 Army Posture Statement, page 3, available online at <http://www.army.mil/info/institution/posturestatement/>, accessed 18 March 2010.

documents and among the current and evolving requirements and views of the nation's military leaders who are ultimately charged with globally deploying Army forces and provisioning them as part of a Joint team. From the Army Posture Statement to the National Defense Strategy, it is possible to look at the recent past, current strategic and operational missions, as well as a future perceived and projected as far as the third decade of the twenty-first century.

In order to appreciate the current practice, understanding, and application of the ARFORGEN process, the Army Posture Statements from 2006 through 2010 each provide an addendum topically titled "ARFORGEN." Additionally, the ARFORGEN branch of the U. S. Army Forces Command G-3/5/7 staff provided a PowerPoint presentation delivered on 10 December 2009 to the U. S. Army's III Corps planning staff. The December 2009 PowerPoint presentation titled "ARFORGEN Overview," consolidates the evolutionary history of the process and model that ARFORGEN claims to exercise both in practice and in application. The notes pages accompanying the presentation communicate meaning to the graphic representations, as well as citing sources significant to current application as practiced. A number of All Army Activities (ALARACT) messages and the Fiscal Year 2009 Execution Order issued by the Headquarters, Department of the Army also document the requirements, process, procedures, and significant actors involved in the ARFORGEN progression in relation to responsibilities and timelines for executing the process and synchronizing the ARFORGEN effort.

Understanding how an organization as complicated and complex as the U. S. Army manages change during both peace and conflict are found in publications originating from Fort Leavenworth, Kansas. Major Paul H. Herbert's *Leavenworth Paper Number 16: Depuy and the 1976 Edition of FM 100-5*, as well as the collected works in the 2005 Combat Studies Institute military history symposium publication *An Army at War: Change in the Midst of Conflict*, are two excellent resources. Both provide insight into the Army's intellectual self-examination process and structural reorganization in order to better meet national security objectives. To gain an appreciation of the interdependence of emergent strategy and emergent Army structure, the

2003 RAND Arroyo Center study *The U. S. Army and the New National Security Strategy* establishes a link between national security objectives and the role the Army serves in meeting those objectives. Both the Combat Studies Institute work and the RAND Arroyo Center study offer a number of additional resources for further study, but comparisons of each work also identify some of the leading intellectuals who regularly contribute to the oft-contentious process of reorganization and definition of roles for the Army as the strategic landscape changes. While no single visionary emerges to define the future strategic relevance, the organizational alteration and operational reorganization of the U. S. Army during the early years of the twenty-first century are proving as challenging now as was organizing for potential nuclear war after World War II, and at any other turbulent time in our nation's history.

Limitations

The scope this monograph will be limited to focus primarily on Army active component formations, but will include U. S. Army Reserve (USAR) and Army National Guard (ARNG) discussions relevant to total force generation or force provider issues where applicable. This limitation serves to focus on the evolving ARFORGEN process related to the current National Security Strategy. Army National Guard obligations to provide for state contingency operations, while remaining a viable operational reserve for the active component, enjoins innumerable variables outside the scope of this work. Logistic sourcing discussions that address the challenges of time and materiel resources, as well as the functionality of the sustainment structure under the modular Army design, also demonstrate boundaries beyond the scope of this study seeking to describe functionally how the ARFORGEN process provides combatant commanders with trained and ready forces in synchronization and accordance with national security objectives. Though important, the Army National Guard and logistic sourcing issues expand requirements and issues outside the comprehensive attempt to link the ARFORGEN process with National Security Strategy. U. S. Army Reserve forces, predominately sustainment or service support

oriented, are excluded due to their having many of the same challenges faced by active component forces and many of the same recurring episodic mobilization challenges confronting the Army National Guard.

Lastly, manpower considerations germane to any discussion or study of national mobilization capacity have been purposely omitted except where relevant to discussions of response to national emergency or military conscription enabling specific national objectives. Manpower availability and budget limitations are constraints on national military force structure that are limited in this study to discussing impact on the force fielded at a particular period between 1949 and 2010. The efficacy of the civil population to provide the human capital required to field an army is a topic for further study, but outside the boundaries of this work and focus on ARFORGEN as a process within an All-Volunteer Army.

A Synopsis of Army Force Structure Changes

“*Si vis pacem, para bellum.*”¹⁶

Cold War to Long War—Change, Modernization, and Transformation

The current era of persistent conflict has also been called the Long War¹⁷ in an attempt to quantify and qualify the period. This Long War, a term officially defined in the 2006 Quadrennial Defense Review as “a global war against violent extremists who use terrorism as their weapon of choice, and who seek to destroy our free way of life,” is irregular in nature, and requires America’s armed forces “to be prepared and arranged to successfully defend our Nation and its interests around the globe for years to come.”¹⁸ As of January 2010, the beginning of the second decade of the twenty-first century, the United States Army has had conventional forces committed to combat for nearly eight full years in Afghanistan, with a seventh year anniversary for commitment of forces to Iraq in March 2010. The following sections look back to the evolution of force structure since the end of World War II linked to emergent national defense strategies developed in an environment that found American forces committed to global obligations. The American military had grown exponentially between 1940 and 1945 in order to combat Germany, Italy, and Japan. “When victory came in Europe, the combat theaters fielded a total of eighty-nine divisions,” writes John Wilson in *Maneuver and Firepower: The Evolution of*

¹⁶ Roman motto quoted by Lawrence Freedman in *Deterrence* (7) that translates to “If you wish for peace, prepare for war.”

¹⁷ Dr. James J. Carafano’s article “The Long War Against Terrorism,” published on 8 September 2003, compares the war on terrorism to the Cold War in regard to conflict length. Dr. Carafano specifies that the war in Iraq is comparable to the Korean War (1950-53) as a “flashpoint of action” in a much longer struggle between the United States and global terrorists. Article available at <http://www.heritage.org/Research/Commentary/2003/09/The-Long-War-Against-Terrorism>, accessed 11 April 2010.

¹⁸ *Quadrennial Defense Review Report*, Secretary of Defense Donald Rumsfeld, 6 February 2006.

Divisions and Separate Brigades.¹⁹ The strategic transition from the unconditional defeat of Germany and Japan to deterring Soviet domination of Europe and countering communist aggression in Asia posed a number of challenges for military and civilian leaders during the Cold War.

Cold War

The end of the Second World War found Germany defeated in Europe and three allied powers—the United States, Great Britain, and the Soviet Union—at a strategic impasse. The Soviet Union occupied most of Eastern Europe as a matter of its advance into the heart of Germany in pursuit of German formations, expelled at great cost from the Soviet Union, that collapsed toward Berlin. The British and Americans, advancing from the western invasion beaches of France, liberated Western Europe from Nazi occupation. The meeting of east and west created a new demarcation line that indelibly imprinted European and world affairs for the following six decades. The Soviet Union's occupation and domination of Eastern Europe imparted a strategic separation of former allies and set the political and military conditions that eventually evolved into a long Cold War.

Characterized initially by containment of Soviet communism in Europe, the standoff between east and west developed into a dangerous competition of nuclear brinksmanship. The Soviets sought nuclear weapons to counter the demonstrated nuclear capability the United States employed against Japan that ended World War II. The third global war of the twentieth century was the Cold War, involving diplomatic and military posturing by the United States and the Soviet Union where each sought to achieve greater influence and counter to the power balance achieved by the Soviet-dominated east and American-dominated west during the latter half of the twentieth century. Brigadier General (Retired) John Brown, former Army Chief of Military

¹⁹ John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, (Washington, DC: U. S. Army Center of Military History, 1998), 179. Online publication available at <http://www.history.army.mil/books/Lineage/M-F/index.htm>, accessed 10 March 2010.

History, characterizes the tension and strategic setting as a paradigm shift in American military practice by “virtue of a continuous commitment to large [Army] forces deployed overseas, up front, in the face of the enemy, prepared to compete at any level across the fullness of the strategic spectrum.”²⁰ General Brown characterizes the Cold War Army as a continuously modernizing, long-term force permanent in its mobilization and permanent in modernization.²¹ The military history of the United States had been a history of mobilization and demobilization in response to the strategic environment. This alteration in military stance summoned Army leaders to reassess continually the forces fielded to meet the threat posed by the Soviet Union, resulting in experimentation, adaptation, and evolution of force structures during the next sixty years.

1949-54

For the United States military, specifically for the United States Army, the employment of forces during the Cold War followed an intense reorganization and demobilization at the end of World War II. This massive change from a nation at war resulted in a force of ten Regular Army divisions on active duty by 1949. The ten-division active Army was an “unprecedented peacetime force...reflecting the new Soviet-American tensions.”²² Soviet-American tension between communist and democratic ideologies burst with the North Korean invasion of South Korea in June 1950. The American forces in Asia were ill-prepared to meet the communist incursion into South Korea. The experience of rapid mobilization learned during World War II allowed the U. S. Army to mobilize from a mere ten-division force to twenty divisions within

²⁰ Brigadier General (Retired) John Brown, U. S. Army Chief of Military History, speech to 2005 Military History Symposium, 2 August 2005, Fort Leavenworth, Kansas, transcribed in *An Army At War: Change in the Midst of Conflict—The Proceedings of the Combat Studies Institute 2005 Military History Symposium*, John J. McGrath, General Editor (Fort Leavenworth, Combat Studies Institute Press), 30.

²¹ Ibid, 31.

²² Wilson, *Maneuver and Firepower*, 232.

eighteen months of the start of hostilities.²³ Throughout the Korean War, divisions committed to combat continued to utilize the same replacement system implemented during World War II where individuals pushed from the generating base in the United States filled losses sustained in combat and by soldiers rotated home.

1954-60

Following the end of hostilities in Korea, the Army sought to gain efficiency in managing military manpower distributed in the divisional combat formations. Between 1955 and 1959, the Army implemented the GYROSCOPE program of divisional rotation between continental United States divisions and forward stationed divisions in Europe. Divisions were organized to exchange locations between bases in the United States and Europe on a three-year rotation. Unit rotations were expected to benefit from efficiency in application of manpower, economy of force, and improved esprit de corps, but closely monitored lessons learned found periodic declines in the efficiency and combat effectiveness of the units during the transitions. Although recognized for improving the esprit de corps of Army units, the GYROSCOPE program was terminated upon recommendation of the commander of the U. S. Army Europe forces, General Clyde D. Eddleman, who found through measured unit readiness exercises that other replacement systems contributed to improved combat readiness.²⁴ It would be more than forty years before the Army would implement effective unit rotations instead of the long-standing practice of individual replacement.

Nuclear strategy and Cold War scholar Sir Lawrence Freedman,²⁵ Professor of War Studies and Vice-Principal of King's College London, points out that the United States faced

²³ Wilson, *Maneuver and Firepower*, 239.

²⁴ Ibid, 252-254.

continuous Soviet tension in Europe that was further exacerbated in 1949 when the Soviet Union finally developed and successfully tested their own atomic weapons.²⁶ Concurrent to the Korean War and its immediate aftermath, parity in atomic capability achieved by the Soviets spurred the United States to seek further advantage through development of hydrogen-derived thermonuclear capability,²⁷ spawning a nearly irreversible rivalry between Soviet and American scientists, military leaders, and government officials. Professor Freedman emphasizes the importance that the North Atlantic Treaty Organization (NATO) gained in anchoring the United States commitment to defense of Western Europe. The development of ever-increasing lethality and number of nuclear weapons shifted the strategic center of military force from the ground combat forces to the strategic nuclear delivery systems resident in the United States Air Force. Army leaders during this period commenced a number of force structure experiments, the most significant being the Army War College's conceptualization of a five battle group divisional force structure.²⁸

Designed for survivability and dispersion on a battlefield where tactical nuclear weapons were expected to be employed, the design of the battle group sought to enable independent action with organic artillery and an increase in the number of maneuver battalions in the battle group. Professor Freedman cites United States Secretary of State John Foster Dulles's 1954 announcement that the United States intended "to deter aggression by depending 'primarily upon a great capacity to retaliate, instantly, by means and a places of our own choosing.'"²⁹ Professor

²⁵ Biography, for Professor Sir Lawrence Freedman available from King's College London website at <http://www.kcl.ac.uk/schools/sspp/ws/people/academic/professors/freedman/cv.html>, accessed 30 March 2010.

²⁶ Lawrence Freedman, "The First Two Generations of Nuclear Strategists," in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton: Princeton University Press, 1986), 738.

²⁷ Ibid.

²⁸ Wilson, *Maneuver and Firepower*, 271.

Freedman identifies this policy as *massive retaliation*³⁰ that Wilson associates to Army Chief of Staff General Maxwell Taylor's justifying "doctrine of massive retaliation"³¹ as foundational to adapting the Army to the Pentomic structure. General Taylor's objective sought to enable Army formations equal success in conventional and nuclear warfare. The strength of the Pentomic structure lay in "being able to concentrate or disperse quickly was [as being] the key to success and survival on the atomic battlefield" according to Major Robert Doughty in Leavenworth Paper 1, *The Evolution of U. S. Army Tactical Doctrine, 1946-76*.³² Wilson points out that the Pentomic formations enabled the Army Chief of Staff to secure military budget increases that modernized basic infantry weapons deemed lackluster and tedious to political leaders more concerned with enabling the higher cost strategic nuclear deterrent systems in other services.³³ The large number of personnel required to populate the formations within the Pentomic force structure proved difficult to maintain and a vulnerability for Army leaders invested in the Pentomic design. The Pentomic structure endured from 1957 through 1964 during an era when adjustments to available military personnel were modified by increasing draft calls to satisfy the demands of the peacetime standing army. Army leaders sought efficiency in application of military personnel and organizational structure, forcing the Army to reorganize incrementally over time.³⁴

²⁹ Freedman in *Makers of Modern Strategy*, 740, quoting John Foster Dulles's "The Evolution of Foreign Policy," Department of State Bulletin, vol. 30, 25 January 1954.

³⁰ Ibid, 740.

³¹ Wilson, *Maneuver and Firepower*, 279.

³² Major Robert A. Doughty, Leavenworth Paper 1, *The Evolution of U. S. Army Tactical Doctrine, 1946-76*, (Fort Leavenworth, KS: Combat Studies Institute, 2001), 18.

³³ Wilson, *Maneuver and Firepower*, 286.

³⁴ Ibid, 318. In discussing the challenge of military personnel required to fill divisions to full strength, Wilson identified the ROAD structure as instilling the force with the capability to interchange battalions at ideal strength in order to quickly bring a division to full strength.

1960-72

Conceptualized in 1960 even as the Pentomic design was being implemented across the Army, the Reorganization Objective Army Divisions (ROAD) sought to imbue “flexible responses to changing world situations.”³⁵ The ROAD structural reorganization became the first of the Army’s force structure changes to face active combat since the Korean War because the Pentomic experiments were never committed to a conventional or nuclear battlefield. The ROAD structure departed from the battle group organization of the Pentomic design by reducing maneuver elements from five operationally independent battle groups to three infantry, mechanized, or armored brigades under the division commander. The brigade maneuver element lost organic artillery support that was reorganized under the division artillery command as well as retaining only three maneuver battalions instead of five battalions elemental to the Pentomic battle group. Divisional fire support residing in the division artillery saw an increase in the number of and type of indirect fire weapon systems in an effort to compensate with fires the reduction of available maneuver battalions. The flexibility inherent to the ROAD structure was gained from a “solid standard divisional base” of three maneuver brigades (infantry, armor, or mechanized infantry) consisting various infantry, tank, or mechanized infantry battalions that imparted the division commander with “the ability to tailor brigade-size task forces within the division using a variable mix of combat battalions.”³⁶ The “solid standard divisional base” enabled centralized command and control of divisional units, a function previously distributed to battle group commanders under the Pentomic design. The ROAD force structure provided

³⁵ Ibid.

³⁶ Ibid, 308. Wilson identifies the armored division as having six tank and five mechanized infantry battalions; the mechanized infantry division as having three tank and seven mechanized infantry battalions; and the infantry division as having two tank and eight infantry battalions. Airborne and airmobile division structures are omitted from this discussion, as they are specialized structures designed differently from the majority of the Army forces.

nuclear and nonnuclear combat capability to the division and corps commanders forward stationed in Europe by allocating low-yield nuclear-capable Davy Crockett rockets to infantry battalions.³⁷ By 1965, the emerging conflict in Vietnam gained momentum as President Lyndon Johnson “committed Regular Army combat units to South Vietnam to halt North Vietnamese incursions and suppress National Liberation Front insurgents.”³⁸ The 173rd Airborne Brigade stationed in Okinawa was sent to Vietnam, followed by a brigade each from the 1st Infantry Division and the 101st Airborne Division in the United States, culminating with the entire 1st Cavalry Division and the remainder of the 1st Infantry Division by the end of 1965.³⁹ Wilson points out that the force tailoring flexibility inherent to the ROAD structure allowed units deploying to Vietnam to reorganize to adapt to the counterinsurgency fight expected in Vietnam, although a number of deploying division commanders sought to retain tank battalions and armored formations.⁴⁰

Between 1965 and 1972, the ROAD force structure enabled Army commanders to force tailor combat formations with mechanized, airmobile, and light infantry battalions employed throughout the Vietnam War in combat configurations that were enhanced with fire support and armored elements as mission objectives developed. Beginning in 1969 and culminating in 1972 with the return of the last Army brigade element from Vietnam, the ROAD structure enabled reallocation of forces throughout the United States and Europe in an effort to maintain a credible conventional force in defense of Europe, as the Soviet threat had not diminished in that strategically important region. The Army continued to utilize the individual replacement system

³⁷ Ibid, 297.

³⁸ Ibid, 323.

³⁹ Ibid.

⁴⁰ Ibid, 324-327. Wilson identifies the 1st Infantry Division and 25th Infantry Division each gaining permission to deploy to Vietnam with tanks and mechanized formations, contrary to conventional wisdom that armored forces would be ineffective in Vietnam,

once a formation was committed to a deployment or combat. Unit designations and names often changed during this period, while personnel rarely moved when the parent unit designation transferred from one location to another as the Army shifted forces and focus back toward Europe and the enduring late-twentieth century threat posed by the Soviet Union.⁴¹

1972-82

As the Army restationed and distributed combat formations returning from Vietnam in the early 1970s, a number of changes influencing Army structure occurred, aside from the transition in 1973 to the All-Volunteer Force, emphasized by a seminal combat episode in the Middle East in late 1973. The October 1973 Arab-Israeli War, involving no American forces, resulted in enormous introspection and reexamination of Army doctrine and structure like few other events in history. The events of the Arab-Israeli War demonstrated lethality, mobility, and survivability of modern weapons and equipment that generated Army leaders to conceive how the United States Army would perform in a similar circumstance against the formations, weapons, and equipment employed by the Soviet Union.

Egyptian army forces crossed the Suez Canal, penetrated Israeli defenses and established a defendable line that withheld successive Israeli armored counterattacks while Syrian attacked across the Golan Heights, forcing Israel into a desperate two-front conflict. The result after three weeks of intense armored and mechanized warfare employing modern weapons found that tank and artillery losses by both sides exceeded the total number of United States Army tank and artillery systems forward stationed in Europe. Further analysis of Israeli-captured Egyptian and Syrian equipment provided to the Arab nations by the Soviets revealed that the Soviet forces were

⁴¹ Ibid, 343-347. Wilson points out that “Acting Secretary of the Army Thaddeus R. Beal announced a reduction in total Army forces for economic reasons” while President Nixon announced a series of troop withdrawals from Vietnam. As named units would withdraw from service in Vietnam, replacements would cease to arrive at those units and only a minimum number of remaining assigned personnel would return with the unit headquarters to the United States where the unit designation would either be retained or deactivated from the active Army.

ahead of the United States forces concerning combat vehicle technology.⁴² The stunning lethality of long-range anti-tank guided missiles (ATGMs), effective air defense systems, and mobile armored warfare compelled United States Army leaders to question the American Army's readiness for combat. Specifically, General William DePuy sought to reexamine the tactics and structure of the Army in order to address the apparent capability gaps between demonstrated Soviet technology and tactics employed by Egypt and Syria against Israel, and the known organizational and equipment capabilities of the U. S. Army. General DePuy established an objective to rewrite the definitive Army doctrine found in Field Manual 100-5 *Operations*. Major Herbert documents the process as deliberate, contentious, and a departure from earlier doctrinal developments due to the convergence of DePuy's professional military experience spanning a career from World War II through the Vietnam War, overlaid upon the lessons learned from the Arab-Israeli War of 1973.⁴³

The impetus of change spawning General DePuy's rewrite of Field Manual (FM) 100-5, combined with development of new equipment and weapon systems between 1975 and 1979 forced no significant change in the basic ROAD structure until General Donn A. Starry assumed DePuy's post as the Commander of the United States Army's Training and Doctrine Command (TRADOC). Under General Starry, a revised FM 100-5 published in 1982 included the AirLand Battle concept, upon which the Division-86 force structure was grounded. The Division-86 structure variance reflected the flexibility inherently designed into ROAD nearly twenty years earlier, but differed in the number and type of combat systems employed under the division. Significant additions to the division included multiple launch rocket systems (MLRS) in the division artillery, increased numbers of tanks—either M60 or new M1 Abrams main battle

⁴² Major Paul H. Herbert, Leavenworth Paper Number 16: *Deciding What Has to be Done: General William E. DePuy and the 1976 Edition of FM 100-5*, (Fort Leavenworth, KS: Combat Studies Institute, 1988), 29-30.

⁴³ Herbert, Leavenworth Paper Number 16, 34-36.

tanks—in tank platoons and companies, Bradley Infantry Fighting Vehicles, and the addition of an aviation brigade to the division. The aviation brigade’s helicopters provided a highly mobile and responsive anti-tank capability to the division commander in the form of two attack helicopter battalions.⁴⁴

1983-2003

Following the structural changes of Division-86, the creation of specialized light infantry divisions initiated by Army Chief of Staff General Edward Meyer was carried forth by his successor, General John A. Wickham. The Light Infantry Division concept sought to create a rapidly deployable infantry division equipped with light towed artillery, “transportable in fewer than 550 C-141 sorties in less than four days.”⁴⁵ Division-86 transformed to the Army of Excellence force structure construct effective from 1984 through the end of the twentieth century, supplanting the ROAD structure that had served the Army for twenty years.

As the dawn of the twenty-first century approached, another Army Chief of Staff, General Eric K. Shinseki, conducted a reassessment of the capabilities of the Army he was charged to lead and determined that change was warranted. Earlier Army Chiefs of Staff Generals Gordon Sullivan and Dennis Reimer invested experimentation into networked and digitized combat formations at the division and corps levels with the “Force XXI” concept at Fort Hood, Texas. Force XXI extended digital command, control, reconnaissance, surveillance, and intelligence functions between command echelons ranging from company through battalion, brigade, and division commanders.⁴⁶ The networked digital systems residing at each echelon

⁴⁴ Wilson, *Maneuver and Firepower*, 382-389.

⁴⁵ Wilson, *Maneuver and Firepower*, 393. The C-141 was the U. S. Air Force’s dominant long-range transport aircraft capable of providing international reach with in-flight refueling until replaced by the C-17.

⁴⁶ Combat Studies Institute Report Number 14, *Sixty Years of Reorganizing for Combat: A Historical Trend Analysis*, 55.

sought to convey greater clarity and operational awareness of the battlefield environment in order to gain and maintain advantage over an opposing or enemy force.⁴⁷ Capitalizing on the capabilities and lessons learned through Force XXI experimentation in digitization and network initiatives, General Shinseki directed a concentration of the Force XXI-derived divisional network architecture and battlefield environmental awareness potential to imbue those capabilities in a brigade-sized element and initiated the Interim Brigade Combat Team (IBCT) experiment in October 1999.⁴⁸

The IBCT experiments also sought to achieve the rapid deployability Generals Meyer and Wickham sought for light infantry divisions. Recognizing the limited power of the light forces developed during the Meyer and Wickham eras, the new interim brigade sought the lethality inherent in an armored force and deployability of light forces to fill the gap between light infantry and heavy armored requirements in Army global force projection capability. Recognizing the challenges to deploy rapidly the heavy divisional force structure worldwide, the IBCT effort focused on filling the niche between the light infantry division's mobility without seeking to redesign the Army around a brigade-centered force. General Shinseki's influential brigade-based experimental force, renamed Stryker Brigade Combat Teams, leveraged the network connectivity of Force XXI initiatives and developed autonomy within the structure of the brigade unlike Army of Excellence brigades in the divisional structure at the dawn of the twenty-first century.⁴⁹ The

⁴⁷ Author's note: The networked battle command systems developed under the Force XXI initiative later came to be known as "Force XXI Battle Command Brigade and Below" shortened to FBCB2. The FBCB2 systems proved elemental to the modular brigade combat team design implemented under Army Chief of Staff General Peter Schoomaker.

⁴⁸ John J. McGrath, *The Brigade: A History—Its Organization and Employment in the U. S. Army*, (Fort Leavenworth, KS: Combat Studies Institute, 2004), 107. The U. S. Army's 4th Infantry Division (Mechanized) at Fort Hood, Texas, served as the test bed for digital and network connectivity under the Force XXI concept.

⁴⁹ Dr. Jeff Charlston, U. S. Army Chief of Military History, speech to 2005 Military History Symposium, 2 August 2005, Fort Leavenworth, Kansas, transcribed in *An Army At War: Change in the Midst of Conflict—The Proceedings of the Combat Studies Institute 2005 Military History Symposium*, John J. McGrath, General Editor (Fort Leavenworth, Combat Studies Institute Press), 43-46.

flexibility and autonomy of the new Stryker brigades were tested by combat in Iraq and demonstrated improvements significant enough to warrant force structure changes borne out of that recent combat experience of both the Force XXI-enabled Fourth Infantry Division and the Stryker Brigade Combat Teams.

Significance of Global War on Terror

Following the events of 11 September 2001 and commitment of military forces to Afghanistan, and later Iraq, the Army faced another dilemma: it had to reorganize, restructure, and field effective combat forces during continuous and persistent conflict. Under the leadership of Army Chief of Staff General Peter J. Schoomaker and in a very short time, the Army's effective deployable combat formation reduced in size and scale from the Army of Excellence division commanded by a major general to the smaller modular Brigade Combat Team (BCT) commanded by a combat arms colonel. The system of time-phased force deployments of divisional-sized Army units shifted focus from the movement of division-command and controlled forces into a theater of action to force-package deployments of brigade-sized elements under General Schoomaker's initiatives. The responsiveness-to-action metric and constraint of limited strategic lift capabilities similar to those elements determined by Army Chiefs of Staff Generals Edward Meyer and John Wickham endured, but required change as well. While not a reflection of poor performance or any single severe shortcoming in the Army of Excellence division structure, change precipitated from the need to project rapidly and distribute effectively the lethal combat power and control inherent to the brigades subordinate to the divisions as quickly as transportation resources would allow.

Evidence of the efficacy of the Army of Excellence division force structure resides in examination of the Operation Iraqi Freedom initial invasion forces employed in March and April 2003. The 3rd Infantry Division (Mechanized), complete with Army of Excellence

organizational allocation of division artillery, an engineer brigade, an aviation brigade, and three maneuver brigades, spearheaded the Army's V Corps attack from Kuwait into Iraq. Additional U. S. Army V Corps-controlled formations included the 101st Airborne Division (Air Assault) with organic division artillery, two aviation brigades, and three light infantry brigades, plus two additional brigade-sized units combined to form the Army's order of battle: the 2nd Brigade, 82nd Airborne Division, and the 173rd Airborne Brigade. This Army of Excellence order of battle destroyed the Iraqi Army and occupied the Iraqi capital within twenty-two days of initiating movement into Iraq from marshalling areas in Kuwait, swiftly achieving a decision over the Iraqi formations arrayed against them. During Operation Desert Storm twelve years earlier, a six-week air campaign followed by a 100-hour ground war failed to achieve the speed of march and depth of penetration into contested territory as that achieved by the V Corps forces in 2003. Operation Iraqi Freedom's assault force consisted of only eight ground combat maneuver brigades during the initial invasion as compared to twenty-one brigades employed during Operation Desert Storm.⁵⁰ Clearly, fewer formations were required to achieve the same warfighting function of conducting battle and defeating an enemy force.

The in-stride reorganization of the Army's combat formations required an innovative method of managing newly developed force structure, manning requirements, equipping needs, and the requisite training needed to deploy formations directly into the persistent conflicts in Afghanistan and Iraq. The force generation process required careful management of limited resources against uncompromising time limitations similar to Louis H. Sullivan's limitations of physical space requiring the vertical construction of a tall office building to accommodate the need to maximize functions within a form.⁵¹ The function of warfighting within the old form of the division, based on a system of linear support to limited-duration crises, became a challenge

⁵⁰ McGrath, *The Brigade: A History*, 111-113.

⁵¹ Sullivan, "The Tall Office Building Artistically Considered."

for a system ill-suited to manage persistent conflict within the constraints of limited resources. Instead of linearity constantly satisfying requirements, cyclical management of the same resource pool was learned through crisis-management synchronization of Army forces deployed to Afghanistan and Iraq. A ten-division active Army transformed into a forty-eight brigade combat team form capable of performing the same function within the limited resource constraints imposed on the ten-division force. The management form shift from division to brigade within the warfighting function expanded the number of available forces and imposed the requirement to cyclically manage generation of ready forces to persistently conduct operations. Within the constraints of time and military endstrength, the Army's force generation—ARFORGEN—process developed procedures to allocate and manage training, manpower, and equipping needs.

Force Generation Challenges

A Detailed Systematic Process

Yet to be formally codified and governed by an Army Regulation, ARFORGEN remains a practice borne of expediency necessitated by the demands of resourcing the conflicts in Afghanistan and Iraq. The following sections detail the ARFORGEN process as currently practiced based upon a PowerPoint presentation prepared by the ARFORGEN section of the U. S. Army's Forces Command (FORSCOM) G-3/5/7 staff for the III Corps Planning Staff. The 10 December 2009 presentation outlined the history, strategy, and details behind the current force generation process and serve as the best single-source Army document available to practitioners familiar with force generation.⁵² The presentation summarizes current Army practice as

⁵² Department of the Army, FORSCOM G-3/5/7 Plans (ARFORGEN Branch) brief prepared for III Corps Plans, "ARFORGEN Overview," LTC Jeff Hannon, dated as of 10 DEC 09, hereafter cited as ARFORGEN Overview and slide referenced.

employed to meet the needs of combatant commanders. The slides and notes pages attempted to convey meaning to the complexity inherent to the management and conduct of force generation in an era of persistent conflict, but represented only what the Army must accomplish in order to meet the Global Force Management requirements directed by the Secretary of Defense.

Global Force Management

Through 2008, combatant commanders made a request through the Joint Operations and Planning and Execution System (JOPES) for conventional Army forces required to satisfy military requirements and meet objectives stemming from policy decisions, operational plans, contingency plans, and operation orders to meet national security intents. JOPES was a continuous decision-making process that integrated combatant commander requirements and provided for “uniform policies, procedures, and reporting structures, supported by communications and computer systems, to monitor, plan, and execute the mobilization/activation, deployment, employment, sustainment, redeployment, and demobilization activities associated with joint operations.”⁵³ Since 2009, the JOPES process has transitioned in name and scope to Global Force Management, a hybrid combination of former JOPES processes and expedient force management processes developed by U. S. Central Command (CENTCOM) to allocate and manage forces deployed to Afghanistan and Iraq.⁵⁴

The Department of Defense publishes a single strategic directive titled *Guidance for Employment of the Force* or GEF, which is classified Secret. The GEF, combined with the *Joint Strategic Capabilities Plan* (JSCP)—also classified Secret—provides combatant commands a

⁵³ Department of the Navy, Headquarters United States Marine Corps Order 3000.18A, dated May 4, 2009, Subject: MARINE CORPS FORCE DEPLOYMENT PLANNING AND EXECUTION PROCESS MANUAL (SHORT TITLE: FDP&E MANUAL), page 1-10. Marine Corps Order 3000.18A provides an excellent description of national level Joint Planning and Execution Community (JPEC) deployment processes under the JOPES construct. It does not address Global Force Management as the emergent successor to JOPES.

⁵⁴ ARFORGEN Overview, slide 15.

deliberate outline for contingency planning that directs the regional and functional combatant commands⁵⁵ to develop campaign plans in support of theater strategies. Compelling development of strategic campaign plans under the GEF and JSCP deliberately shifts contingency-focused operations planning to strategy-focused operations planning and enables the Department of Defense to synchronize global campaign plans with theater campaign plans.⁵⁶ Understanding and synchronizing global and theater campaign plans allows the Department of Defense to apportion forces to meet strategic goals and objectives. Global Force Management seeks to “align force apportionment, assignment, and allocation methodologies to support joint force availability requirements, enable comprehensive insight into global availability of U. S. military forces, and provide senior decision makers a vehicle to quickly and accurately assess the impact and risk of proposed allocation assignment, and apportionment changes.”⁵⁷ The Global Force Management process departs from the former practice of reactionary contingency-based operations planning that sought alignment of specified force structures in response to potential problems as depicted in the FORSCOM Conventional Force Generation Model and Figure 1. Global Force Management under guidance from the GEF and JSCP enables the Department of Defense leaders (Chairman of the Joint Chiefs of Staff (CJCS), the Joint Staff, and ultimately the Secretary of Defense) to review, apportion, allocate, recommend, source, assess risk, and approve plans requiring military forces based on strategic prioritization. Additionally, the Global Force Management process accounts for forces and capabilities committed to current operations,

⁵⁵Professor Patrick C. Sweeney, *A Primer for: Guidance for Employment of the Force (GEF), Joint Strategic Capabilities Plan (JSCP), the Adaptive Planning and Execution (APEX) System, and Global Force Management (GFM)*, 14 May 2008, 2-3. Regional Combatant Commands are Northern Command (NORTHCOM), Southern Command (SOUTHCOM), Pacific Command (PACOM), Central Command (CENTCOM), European Command (EUCOM), and Africa Command (AFRICOM). The Functional Combatant Commands are Strategic Command (STRATCOM), Special Operations Command (SOCOM), Joint Forces Command (JFCOM), Transportation Command (TRANSCOM), the individual services (Army, Navy, Marine Corps, and Air Force), Defense Agencies, and the National Guard Bureau (NGB).

⁵⁶ Sweeney, *A Primer for: Guidance for Employment of the Force (GEF)*, 3.

⁵⁷ Sweeney, *A Primer for: Guidance for Employment of the Force (GEF)*, note 1, 6.

constantly changing unit availability, identifies the most appropriate and responsive force to meet combatant command requirements, improves responsiveness to unforeseen contingencies and the potential to win multiple overlapping conflicts, and ultimately, provides predictability for rotational forces.⁵⁸

The U. S. Army is a force provider through the Joint Forces Command (JFCOM) to the combatant command strategic plans. Conventional Army units organized and trained to provide the capabilities required by a combatant commander define the *who*, entering the Global Force Management pool of deployable military force capability at the end of the ARFORGEN process. The U. S. Army's Forces Command, dual charged as both an Army Command and Army Service Component Command, is the Army Command, or executive agent, managing the Operational Army that consists of Active Component, U. S. Army Reserve, Army National Guard forces.⁵⁹ U. S. Army Reserve and Army National Guard forces comprise the Reserve Component of the total of Army forces available. As an Army Service Component Command, FORSCOM is the executive agent that serves U. S. Joint Forces Command and provides the Army conventional force contingents that satisfy the capability requirements of regional combatant commands.⁶⁰

Army Force Availability Pools

In order to exercise functionally the ARFORGEN processes described in this study, a number of agencies responsible for managing the ARFORGEN progression must coordinate a number of simultaneous, sequential, and enduring efforts. Involved participation between “the Army Staff (ARSTAF), the U. S. Army Materiel Command (AMC), the U. S. Army Training and Doctrine Command (TRADOC), the Director, Army National Guard (DARNG), the Chief, Army

⁵⁸ Marine Corps Order 3000.18A, 6-2.

⁵⁹ ARFORGEN Overview, Slide 13, notes.

⁶⁰ Ibid. Army Special Operations Forces (ARSOF) are provided to JFCOM by the U. S. Special Operations Command (USSOCOM), reference <http://www.socom.mil/SOCOMHome/Pages/USSOCOM.aspx>, accessed 10 March 2010.

Reserve (CAR), the U. S. Army Installation Management Command (IMCOM), and other key invitees”⁶¹ helps to synchronize key ARFORGEN leaders, staffs, and agencies responsible for implementing myriad tasks that result in force generation. Further, the timeline for initiation of ARFORGEN Reset processes is delineated by the Army Staff in order to notify deployed units for long range planning while focusing the principals who implement the ARFORGEN processes and support the FORSCOM commander’s priorities for deployed units returning to their home stations.

The working definition of ARFORGEN, due to be formalized in 2010 among the 525-series (Military Operations) as an Army Regulation,⁶² describes the force generation process as “the structured progression of increased unit readiness over time, resulting in recurring periods of availability of trained, ready, and cohesive units prepared for operational deployment in support of civil authorities and combatant commander requirements.”⁶³ Readiness over time begins with a unit returning from a deployment overseas or having served one year in the force availability pool without being committed in support of a civil support or combatant commander mission, as depicted in Figure 2. By the working ARFORGEN definition, this process is cyclical for any given conventional unit. Active Component conventional Army units are modeled along a thirty-six month cycle consisting of three distinct phases, while Reserve Component Army forces, U. S. Army Reserve and Army National Guard, are modeled against a sixty month cycle, with each phase titled in chronological order and named RESET, TRAIN/READY, and AVAILABLE/

⁶¹ Headquarters, Department of the Army Execution Order: Reset Rehearsal of Concept Drill (FY 09), Pentagon, Washington, DC, 25 March 2009.

⁶² ARFORGEN Overview, notes Slide 7. Numeric series for Army Regulations associated with general topical headings can be found on the Army’s Publishing Directorate knowledge management site at http://www.apd.army.mil/USAPA_PUB_pubrange_P.asp, accessed 30 March 2010. Access to some areas of the Army’s Publishing Directorate require Army Knowledge Online (AKO) username and password verification.

⁶³ Ibid, Slide 7.

DEPLOYMENT.⁶⁴ Sullivan’s aesthetic, utilitarian, and support tripartite distribution concepts for the tall office building—associated as well to beginning-middle-end logical evolution—reflect the ARFORGEN process, as well. Sullivan’s concepts, taken in reverse, apply to the cyclical process: RESET is to support as TRAIN/READY is to utilitarian and the AVAILABLE/DEPLOYMENT phase is to the aesthetic.⁶⁵

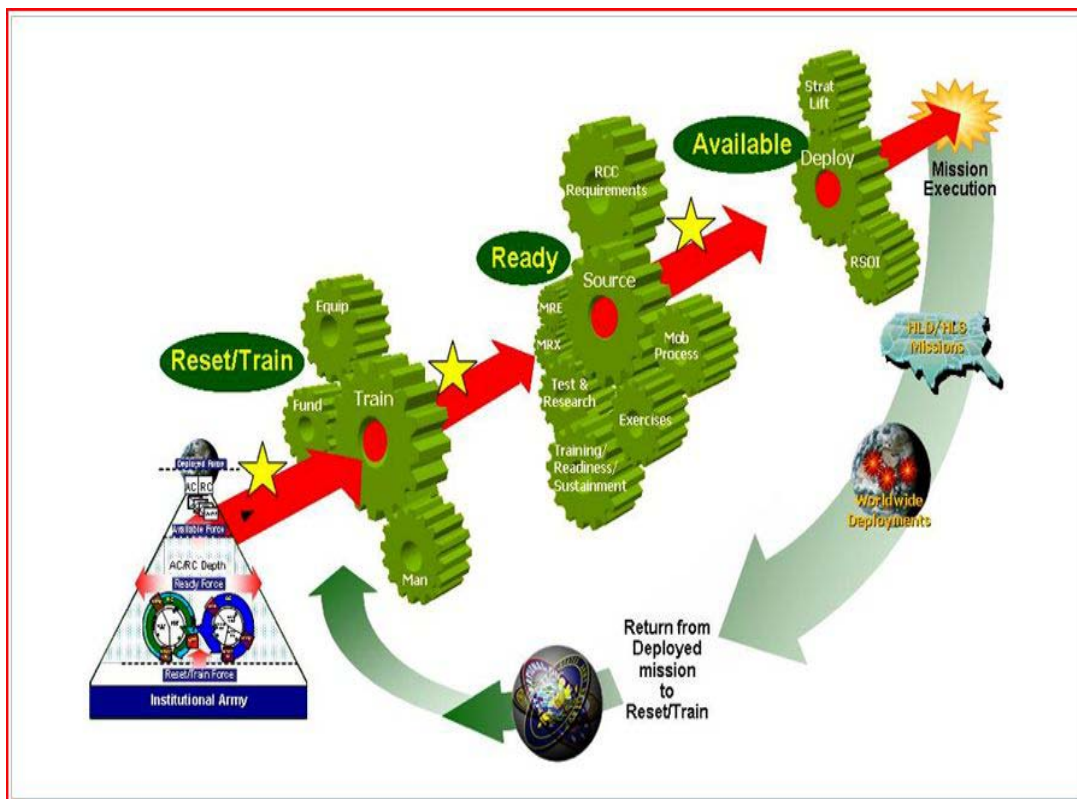


Figure 2: 2008 Army Posture Statement graphic representation of the ARFORGEN Process⁶⁶

For the Active Component, the initial phase labeled RESET extends through month one to month six. As depicted in Figure 2, units primarily focus on training while the Army focuses

⁶⁴ Ibid, slides 17 & 18.

⁶⁵ Sullivan, “The Tall Office Building Artistically Considered.”

⁶⁶ Addenda [sic] E, 2008 Army Posture Statement, available at http://www.army.mil/aps/08/addenda/addenda_e.html , accessed 18 March 2010.

efforts on manning, equipping, and funding issues designed to enable unit commanders to train with the goal of increasing readiness. Not well depicted in Figure 2 are the turbulences of personnel moves and fundamental equipment shortages that hinder unit commanders from conducting effective individual and collective training events planned and executed sequentially in order to increase combat capability and readiness over time. The TRAIN/READY period of months seven through twenty-four follow the RESET phase, culminating with the final twelve months of the thirty-six month cycle labeled as the AVAILABLE/DEPLOYMENT period.⁶⁷ Reviewing Army Posture Statements from 2004 through 2010, ARFORGEN—as an independently defined Army acronym—first appears in the 2006 Army Posture Statement submitted to Congress by Secretary of the Army Francis J. Harvey and Army Chief of Staff General Peter J. Schoomaker. The 2006 Army Posture Statement first outlines force pools as RESET/TRAIN, READY, and AVAILABLE.⁶⁸ Addendum E to the 2006 Army Posture Statement, titled *Army Force Generation Model – ARFORGEN*, provides detail to anticipated management of conventional forces as they rotate through the ARFORGEN process into the Global Force Management-deployable AVAILABLE pool. Deployed units ideally begin the RESET phase 180 days before redeployment from theater back to their home station by conducting thorough planning as a function of the cyclic nature of the continuous ARFORGEN process.⁶⁹ The personnel charged with leading the unit will change throughout the cycle by way of reassignments and changes of command, but they are still responsible for planning and maintaining continuity of readiness training and resource allocation for the organizational leaders who follow.

⁶⁷ ARFORGEN Overview, Slide 17.

⁶⁸ Army Posture Statements 1997 through 2010 available online at <http://www.army.mil/info/institution/posturestatement>, accessed 18 March 2010.

⁶⁹ Headquarters, Department of the Army Execution Order: Reset Rehearsal of Concept Drill (FY 09), Pentagon, Washington, DC, 25 March 2009, page provides a sample timeline, identifying the RESET minus 180 day period as the “In Theater” phase of the ARFORGEN process.

The AVAILABLE force pool, under ARFORGEN, is further divided into Ready Expeditionary Forces (REF), Deployment Expeditionary Forces (DEF), and Contingency Expeditionary Forces (CEF).⁷⁰ Also found in the 2006 Army Posture Statement is the genesis for considering the thirty-six month Active Component and sixty-month Reserve Component time management periods currently promulgated by the FORSCOM ARFORGEN Overview brief. Attributed to Secretary of Defense Donald Rumsfeld's 9 July 2003 memoranda guidance to manage the force, one operational deployment in three years for Active Component forces and one operational deployment in six years for Reserve Component forces—a thirty-six and seventy-two month cycle respectively⁷¹—serves as foundational deployed-force and time-management direction for the ARFORGEN cycle soon to be codified by FORSCOM. Evolution to the current FORSCOM managed force generation time periods of thirty-six and sixty months periods are likely the result of refined analysis of deployment burdens fielded by Reserve Component forces between 2005 and 2009, although no reference in any of the Army Posture Statement documents between 2005 and 2010 indicate a specific catalyst.

The 2007 Army Posture Statement adheres to the previously established seventy-two month cycle for the Reserve Component, with the final twelve months of a conventional unit's lifecycle obligated to the AVAILABLE pool.⁷² The 2007 Army Posture Statement is also the first of the annual Army Posture Statements to indicate a pressing need to re-balance the composition of the Army's conventional forces after the Army, as an institution, had experienced deployments for both Active and Reserve Component forces continually through a period of five-plus years. The Active Component's forty-eight Brigade Combat Team transformation is

⁷⁰ Addendum E: Army Force Generation Model—ARFORGEN, 2006 Army Posture Statement, available at http://www.army.mil/aps/06/15_addendums.html, accessed 18 March 2010.

⁷¹ Ibid.

⁷² Addendum H (Army Force Generation), 2007 Army Posture Statement, available at <http://www.army.mil/aps/07/addendum/h.html>, accessed 18 March 2010.

graphically overlaid in the three force pools, as depicted in Figure 3. Rebalancing becomes a major theme in the 2008 Army Posture Statement, where the Army's Reserve Component forces increased deployment obligation receives resolution and stability through implementation of a twelve month mobilization policy while Active Component forces are obliged to deployments between twelve and fifteen months in duration.⁷³ The 2008 Army Posture Statement diverges from previous Army Posture Statements that specify time periods for the length of the ARFORGEN cycle, yet remains true to the three force pool phases and management techniques first presented in the 2006 Army Posture Statement.

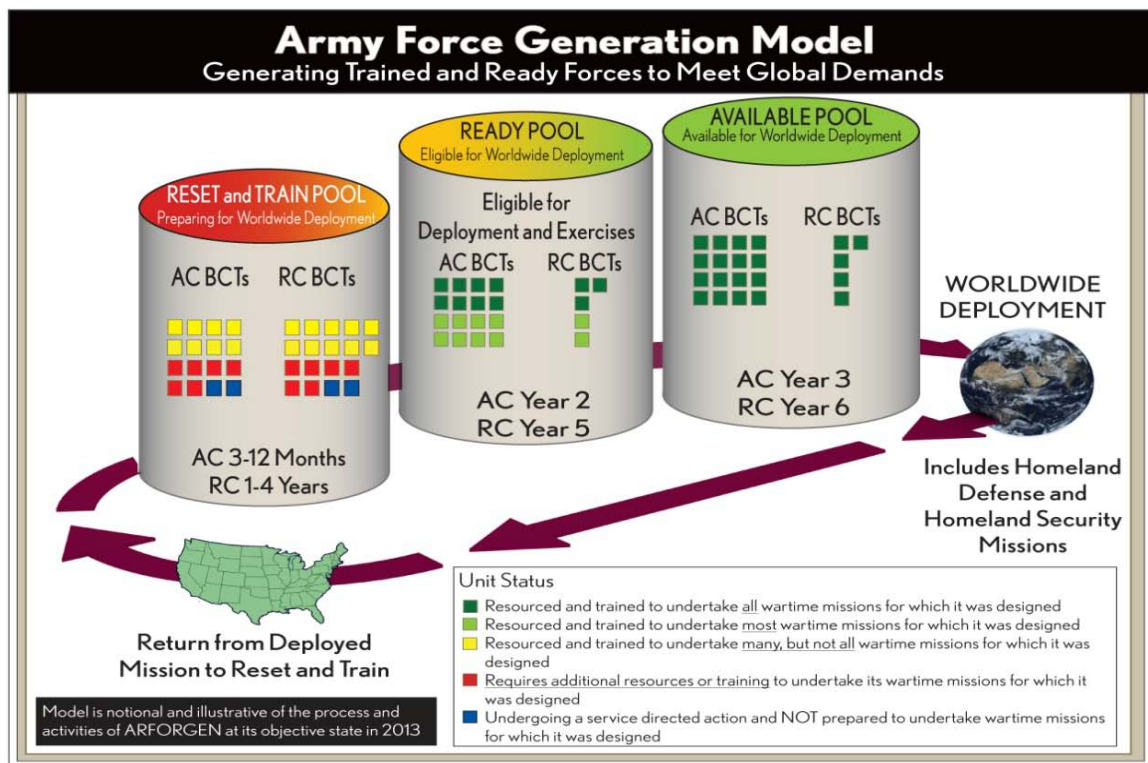


Figure 3: Addendum H, 2007 Army Posture Statement graphic representation of Force Pools and number of Brigade Combat Teams (BCTs) in each pool, based on forty-eight BCT active duty force.⁷⁴

⁷³ Addenda [sic] E: Army Force Generation Process, 2008 Army Posture Statement, available at http://www.army.mil/aps/08/addenda/addenda_e.html, accessed 18 March 2010.

⁷⁴ Image available at http://www.army.mil/aps/07/images/charts/Army_Force.jpg, accessed 18 March 2010.

Addendum E of the 2009 Army Posture Statement, an addendum devoted solely to outlining the process and model that encompass ARFORGEN, presented to Congress the specified data that informed the FORSCOM ARFORGEN Overview, indicating management timelines for the Active and Reserve Component forces officially categorized into *Steady State* and *Surge* conditions. The 2009 Army Posture Statement's categorizations of *Steady State* and *Surge* reflect the 2006 *Quadrennial Defense Review* report's official accounting for activities the Department of Defense conducts continuously (*Steady State*) and episodically (*Surge*).⁷⁵ In an era of persistent conflict, the Active Component's *Steady State* condition seeks a management timeline ratio of one-to-three, citing as an ideal condition that Active Component organizations would spend nine months deployed and twenty-seven months obligated to training out of a total lifecycle period of thirty-six months. The Reserve Component force's *Steady State* condition outlines a six-year cycle where twelve months are obligated to mobilization and the remaining sixty months are classified as being in a demobilized status. The *Surge* conditions of ARFORGEN for Active Component conventional forces equate to one year deployed to two years in training of a three-year lifecycle period, while the Reserve Component forces can expect one year mobilized to four years in a demobilized status as part of a five-year cycle surge effort as compared to the six-year cycle defined in the *Steady State*.⁷⁶

The 2010 Army Posture Statement presented to Congress in February 2010 refrains from directly addressing the specific lifecycle timelines for either Active Component or Reserve Component forces. The 2010 document remains true to the force pool management process and offers the most comprehensive explanation of *what* occurs during the tri-phased process of ARFORGEN as conventional units move through the cycle from RESET, to TRAIN/READY, and emerge into the AVAILABLE pool for prospective Global Force Management commitment.

⁷⁵ *Quadrennial Defense Review Report*, 2006, 36-38.

⁷⁶ Addendum E, 2009 Army Posture Statement at http://www.army.mil/aps/09/addenda/addenda_e.html, accessed 18 March 2010.

While the Army's ARFORGEN regulation awaits publication, the evolution of the Active Component's conventional force lifecycle reasonably appears to be set at thirty-six months, for both *Steady State* and *Surge* conditions. The Reserve Component, consistently aligned along a seventy-two month lifecycle in earlier documents, may now be leaning toward management at the sixty-month. The constraint of *Surge* and *Steady State* timelines for both Active and Reserve Component forces impart the perception that ARFORGEN is a calendar-based system—it is not. The constraint of a limited force pool resultant of congressional restrictions on the size of the All-Volunteer Force forces management of available resources against multiple requirements cyclically instead of linearly. The conditions of persistent conflict obliged the Army to adopt cyclical force management, departing from force management designs based on earlier twentieth century American experience that mobilized the nation in response to conflict, as in World War I and II, and then mobilized a specific population through the draft in response to the Korean War, the Vietnam War, and throughout the peace-time draft of the Cold War through 1972. Once the All-Volunteer Force became the norm, the linear-based mobilization process, to include the TRAIN-ALERT-DEPLOY model standard for the Army of Excellence, failed to adequately resource global military obligations without involuntarily mobilizing specific segments of the population. The ARFORGEN cycle imparts management and allocation of Army resources against operational obligations for a military that is at war without relying on the conscription to resource increasing personnel requirements.

Current Force Generation Initiatives: Turbulence in the Pool—ARFORGEN Challenges

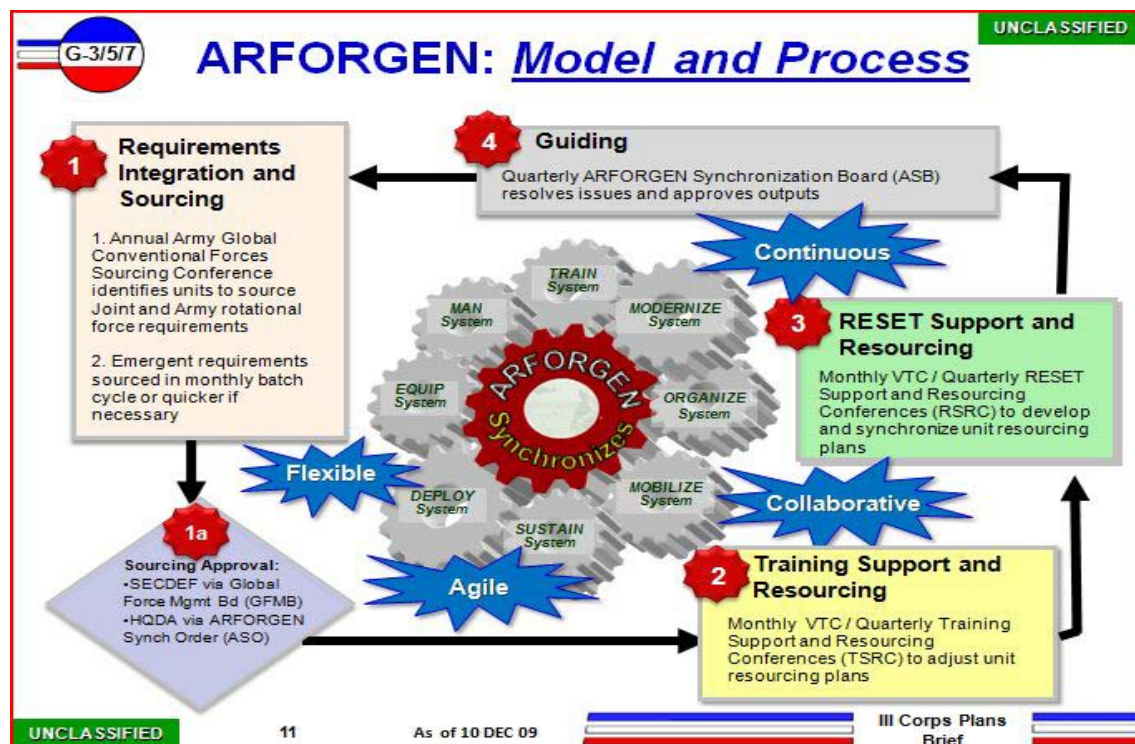


Figure 4: Slide 11, FORSCOM ARFORGEN Overview.⁷⁷

Figure 4 depicts ARFORGEN as both a model and a process that synchronizes people, equipment, training, and formations over time.⁷⁸ Callouts highlight the nature of the process as being continuous, collaborative, agile, and flexible while synchronizing a number of systems. ARFORGEN as both a model and a process, as depicted in the slide above and replicated in the 2010 Army Posture Statement, attempts to accomplish the same degree of synchronization and coordination between systems that the GEF, JSCP, and Global Force Management processes serve the Department of Defense in providing resources to combatant commands in coordination with the National Military, National Defense, and National Security Strategies of the United

⁷⁷ Figure 4 is also depicted in Addendum F, 2010 Army Posture Statement, available at online at [https://secureweb2.hqda.pentagon.mil/vdas_armyposturestatement/2010/addenda/Addendum_F-Army%20Force%20Generation%20\(ARFORGEN\).asp](https://secureweb2.hqda.pentagon.mil/vdas_armyposturestatement/2010/addenda/Addendum_F-Army%20Force%20Generation%20(ARFORGEN).asp), accessed 18 March 2010.

⁷⁸ ARFORGEN Overview, Notes Slide 11.

States. The oversimplification of ARFORGEN to be both a model and a process creates turbulence and friction among the systems objectively sought for synchronization and the units intended to be readied for Global Force Management apportionment and allocation toward a combatant command plan.

Coordination and synchronization of systemic processes identified in Figure 4 (Train, Modernize, Organize, Mobilize, Sustain, Deploy, Equip, and Man) each require extensive coordination and overlapping responsibility with agencies beyond the command structure of FORSCOM as to create significant gaps evidenced by recent experience. To measure effectiveness of the systemic processes recently put into practice under ARFORGEN, an unclassified study by Serco⁷⁹ of implementation processes conducted in 2007 examined the feasibility of fully in-processing a brigade combat team within a thirty-day window as outlined in official ARFORGEN implementation guidance.⁸⁰ An examination of the personnel throughput capacity within a thirty-day limit for personnel in-processing at a number of installations identified a failure to achieve the objective goal of eighty-five percent processed. The shortest duration of elapsed time to achieve eighty-five percent processed was realized after 168 days at two of the four installations studied.⁸¹ The results of this study have since contributed to streamlined processes, realistic expectations, and improved procedural guidance for personnel management employing ARFORGEN methods. The study confirmed that external influences specific to the Man-system range beyond the scope of FORSCOM-managed ARFORGEN

⁷⁹ Serco, Inc. is a subsidiary of Serco Group PLC, a service and outsourcing company focused on scientific research in professional, technology, and management services. Serco, Inc. company information available online at <http://www.serco-na.com/Default.aspx?Page=HomePage> and Serco Group PLC available at <http://www.serco.com/about/index.asp>, accessed 5 May 2010. The U. S Government Standard Form 298 covering the report does not define the specific government agency requesting the study.

⁸⁰ "Implementing ARFORGEN: Installation Capability and Feasibility Study of Meeting ARFORGEN Guidelines," by SERCO, Inc., Vienna, VA, 26 July 2007, 21.

⁸¹ Ibid, Table 4-1, 21.

processes and introduces enduring and constant turbulence into a force management model based on phased time progression from RESET to AVAILABLE pools.

The utility of ARFORGEN as a model, however, stands effective as a means to focus system synchronization concerning the force pool phase of the unit lifecycle model. Figure 2 depicts synchronization in relation to RESET/TRAIN, READY, and AVAILABLE force pools, but incorrectly portrays the systems requiring synchronization across the phases. More correctly depicted, the systems identified in Figure 4 would be echeloned in the model against the requirements of each phase of the unit lifecycle in order to graduate a conventional force capable of achieving Joint Force Provider (U. S. JFCOM) standards for apportionment and assignment in accordance with combatant command capabilities requirements. The ARFORGEN model retains the potential to synchronize the systems and integrate the key ARFORGEN leaders, staffs, and agencies responsible for implementing the myriad tasks associated with force generation. As a process, the ARFORGEN staff synchronization effort seeks to “implement the ARFORGEN process by synchronizing both the resourcing and the assessment processes to produce trained and ready forces sourced to meet Combatant Commanders Army Force requirements.”⁸² Further, the process seeks to achieve the goal where “[R]eset events and training events are synchronized and deconflicted [sic] between the Operating and Generating Force to provide trained and ready units.”⁸³ Narrowing the scope of the process and integrating the model force pools to provide consistently forces both to and from the AVAILABLE pool will reduce friction and lessen turbulence for the units and personnel who comprise the Army forces required by the Joint Force Provider.

⁸² Headquarters, Department of the Army. All Army Activities (ALARACT) message 324-2009, 1st Quarter FY 10 FORSCOM ARFORGEN Training Support and Resource Conference (TSRC) and Reset Support and Resourcing Conference (RSRC), Washington, DC, 24 November 2009, pages 1-2

⁸³ Ibid.

Impact of Changing Environment

Strategic changes in direction often create turbulence and friction that may result in unforeseen opportunities to deliver either lasting or fleeting change in force structure. With the advent of “Transformation” to the modular force initiated in 2003, the active Army projected an increasing combat capability of forty-eight modular brigade combat teams and an overall increase in total Active and Reserve Components forces to seventy-seven maneuver brigade combat teams.⁸⁴ Growing the Army’s combat formations and increasing the number of soldiers available to fill the formations sought to achieve stability and predictability as units formed, trained, and served as ready forces to combatant command requirements. “On April 6, 2009, the Secretary of Defense announced several key decisions greatly affecting Army Modernization... ..limiting Active Component growth of BCTs to 45,”⁸⁵ reducing the total Active and Reserve Component number from seventy-seven to seventy-three, affecting no change in the projected Reserve Component brigade combat team strength.⁸⁶

In combination with the directive to curtail Stop Loss policies—the involuntary extension on active duty lengthening active duty soldier obligations to remain in uniform through the end of their assigned unit’s combat deployment—the Secretary of Defense’s decision to cap the number of active component brigade combat teams forced the Army to more effectively manage military manpower. The compounding protests of Soldiers “Stop-Lossed” compelled the Secretary of Defense to establish mandates that forced the Army to implement more effective personnel policies within the limits of the force structure, resulting in a net decrease of the number of available Active and Reserve Component brigade combat teams. Fewer Army brigade combat teams is an overall net reduction in the number of conventional forces available to impact the

⁸⁴ Field Manual 1 (FM 1), *The Army*, 14 June 2005, 4-7.

⁸⁵ Headquarters, Department of the Army. Deputy Chief of Staff, G8, *2009 Army Modernization White Paper*, 2.

⁸⁶ 2010 Army Posture Statement, 8.

Joint Force Provider's obligation to address the demands of combatant command theater strategic plans, as well as the number of ongoing active contingency missions. The Secretary of Defense exercised, under the GEF, his responsibility to manage risk associated with force apportionment and priorities. ARFORGEN, as a process, was similarly affected by the reduction in the number of available brigade combat teams. An unintended benefit to the AFORGEN system was realized through the reduction in the number of contending systems requiring integration and synchronization. New brigade combat teams formed under the "Grow the Army" projection were eliminated from competing for the same resources as units entering the RESET phase of the lifecycle force pool system.

President Barack Obama's strategic direction to reduce the number of combat forces involved in Operation Iraqi Freedom, even while increasing the number of forces apportioned to Operation Enduring Freedom in Afghanistan, affect ARFORGEN processes and availability of Army forces to source Joint Force Provider requirements. As the size and number of obligated brigade combat teams reduce in Iraq, a corresponding increase in the demands on ARFORGEN processes within the limited force pool lifecycle model create competition among a number of units seeking the same resources within the same timeline model. *Surge* and *Steady State* conditions between two theaters of action impart additional turbulence to force pool management on FORSCOM's ARFORGEN system.

Shifts in focus for Army formations from the current operations in Afghanistan and Iraq impart another turbulence. Strategic partnerships and obligations in Asia and response to unforeseen natural disasters and humanitarian emergencies either compel unprepared and ill-equipped forces to meet the demand for military obligations or degrades the ability of the nation to maintain a focused strategic reserve for potential major combat operations. The January 2010 Haiti earthquake, while not fully documented in regard to readiness challenges, created Global Force Management dilemmas and challenged assumptions regarding employment of military force in response to humanitarian disasters. Equally challenging, but stressing regional strategic

partnerships following the Haiti earthquake was the February 2010 Chile earthquake of greater magnitude, but less severe humanitarian consequence. Although most challenges associated with each of these two events reside at the national level, the implications and operational solutions should seek resolution within Army ARFORGEN processes according to the model.

Conclusion

Current State

ARFORGEN is here to stay, codified through the future publication of an Army Regulation that will capture the processes, procedures, and guidance extant to ARFORGEN practice now. If the future Army Regulation “525-XX”⁸⁷ pertaining to ARFORGEN mirrors the scope and breadth of information similarly related in Marine Corps Order 3000.18A, practitioners responsible for planning, coordinating, synchronizing, and commanding Army ground forces will better understand implications of deviations from the model as currently designed.

ARFORGEN planning now reflects the same general timelines as the Army Staff uses in preparation for the Program Objective Memorandum, seeking to “lock-in” a two-year planning window as an execution timeline.⁸⁸ Integrating garrison activities within the ARFORGEN force pool’s lifecycle phases contributes additional turbulence to units navigating stringent timelines ordered by the ARFORGEN synchronization of systemic functions.

The ARFORGEN model and process, as depicted by both the FORSCOM ARFORGEN Overview and the 2010 Army Posture Statement, treat all Army formations equally within the modeled timeline. Not all Army formations are the same, however, and the timelines to achieve operational readiness for logistic units will differ from the timelines for artillery brigades, aviation brigades, and the three different maneuver brigade combat teams. Infantry, Heavy, and Stryker brigade combat teams, by nature of their organic composition, require differing lengths of time to cycle through ill-defined sub-phases of the RESET and TRAIN lifecycle pools—the

⁸⁷ ARFORGEN Overview, Slide 7. AR 525-XX is used to denote adraft Army Regulation of the 525-series, with an undefined numerical reference that will categorize the regulation as pertaining to ARFORGEN.

⁸⁸ 101st Airborne Division (Air Assault) and Fort Campbell, Kentucky DRAFT information brief, “Operation Keystone 10-13,” 261731SMar10, version 3, prepared by the Mission Support Element (MSE) G3. This draft version of “Operation Keystone,” the 101st Airborne Division named Reset and ARFORGEN operations order provides planning timelines to set conditions for the return of Fort Campbell based units prior to their deployment to Operation Enduring Freedom in Fiscal Year 2010.

armored and mechanized Heavy and Stryker brigades demand more time and resources than the lightly equipped Infantry brigades do. The stated goal of the ARFORGEN process to synchronize the overall efforts of subordinate systems enabling capability development within Army formations is noble, but also subject external influence beyond the controlling aspects of AFORGEN synchronization efforts. Modifications to resource allocations, technology improvements, and other modernization programs may degrade the readiness or expected capability and capacity of Army forces to operate within the operational requirements defined by the Joint Force Provider resourcing regional or functional combatant commander theater strategies.

Lastly, the impact of Army end strength, as defined by Congress, influences the functionality and feasibility of ARFORGEN in practice.⁸⁹ Personnel turbulence is intrinsic to a system that requires career progression through education and training of Army noncommissioned, warrant, and officer leaders as those populations of service members experience career progression. Current practice seeks to stabilize brigade and battalion command teams throughout the thirty-six month unit lifecycle while narrowing the personnel changeover through post-deployment exodus to a ninety-day period immediately following an operational deployment. The mass departure of brigade and battalion command teams potentially at their highest experience levels decreases the overall readiness of the combat unit. New leaders bring renewed enthusiasm and vigor to the challenging duty of command, but must rely on a minority of core experienced junior leaders to leverage recent experiences as the unit moves through the ARFORGEN cycle. The imperfections of the personnel policies in practice may be overcome through experience gained during the journey through the lifecycle as modeled, but imparts

⁸⁹ Public Law 111-84, *National Defense Authorization Act for Fiscal Year 2010*, 28 October 2009, Title IV—Military Personnel Authorizations, Sections 401-422. Section 403 specifically addresses authorized increases to Army active duty endstrength for fiscal years 2011 and 2012.

stress, friction, and turbulence that prove a particular challenge when timelines are constrained or reduced in response to Surge efforts against Steady State plans.

Future State--Recommendations

Imperfect as it may be, the ARFORGEN model represents an improvement to the evolution of Army force structure and force generation changes developed in response to the global strategic environment facing the United States since the end of World War II. Force structure developments designed to generate combat formations in response to real and perceived threats framed the organization of an enduring standing Army throughout the Cold War and experimented with a variety of organizational constructs, some of which—the Pentomic organization—were considered failures. These evolutionary and deliberate processes provided a framework for application of ground combat power in response to real and perceived strategic threats for the expected operational environments of their time. The strategic concept of providing and sustaining those formations throughout a long-term conflict by force generation practices based on national mobilization, however, proved flawed once the United States entered an enduring conflict with an All-Volunteer Force.

The projected future strategic environment portends the same degree of ambiguity that the initial stages of the Cold War posed for Army and national leaders in 1949. Enabling the brigade combat team modular organization of the Army currently in effect, ARFORGEN may benefit from some backward looks into applications tested in the past. The ROAD organizational structure, when implemented in the wake of Pentomic formations, aligned Regular Army divisions with basic training centers and induction processes training civilians to become soldiers, yet was later abandoned. During the mid-1980s, an experiment with the cohort concept of standing up units of core cadres manned by soldier contingents transitioning from the institutional Army's training base en masse was also abandoned. Integrating the resident core cadre of experienced junior and noncommissioned officers who remain in units recently returned from

contingency operations, combined with mentorship of new brigade and battalion command teams by the departing experienced former leaders may mutually benefit the overall mission readiness of units reacting to Surge conditions. The objective gains realized by combining experience with enthusiasm may convey shortened readiness timelines required to answer combatant command requests for forces in support of theater strategies and contingencies.

Finally, the ARFORGEN process, once codified, should seek synchronization of systems improvement and modernization while integrating training and education processes throughout the lifecycle pool progression, focused on providing specific capabilities to brigade combat teams projected to fulfill GEF and Global Force Management requests. While the Army's mission remains unequivocally to fight and win the nation's wars, Army and joint forces are increasingly required to fulfill obligations different, but no less demanding, than major combat operations. In practice already by virtue of focusing brigade combat teams on counterinsurgency warfare (COIN), similar training and resourcing programs that specialize formations to respond to any contingency along the full spectrum of military operations fails to fully resource and train formations for disaster management and humanitarian assistance missions at the cost of readiness to respond to emergent strategic threats. The *Guidance for Employment of the Force* and the *Joint Strategic Capabilities Plan* inculcate risk management procedures and considerations, but the ARFORGEN process should similarly consider these missions as the Army prepares and certifies units available to the Global Force Management pool.

BIBLIOGRAPHY

- Doughty, Robert A., Major, United States Army, Leavenworth Paper 1, *The Evolution of U. S. Army Tactical Doctrine, 1946-76*, Fort Leavenworth, KS: Combat Studies Institute, 2001.
- Epley, William W., Association of the United States Army--The Institute of Land Warfare Paper No. 32, "America's First Cold War Army 1945-1950," Arlington, VA, August 1999.
- Freedman, Lawrence, *Deterrence*, Cambridge, UK: Polity Press, 2004.
- _____. "The First Two Generations of Nuclear Strategists," in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, ed. Peter Paret, 735-778. Princeton: Princeton University Press, 1986.
- Johnson, Michael S., Major, United States Army, "The Myth of the Unsustainable Army: An Analysis of Army Deployments, the All Volunteer Force, and the Army Force Generation Model," MMAS Thesis, U. S. Army Command and General Staff School, 2009.
- Krippendorff, Klaus. *The Semantic Turn: A New Foundation for Design Enquiry*. Boca Raton: CRC Press, 2006.
- Sullivan, Louis H. "The Tall Office Building Artistically Considered." *Lippincott's Magazine*, March 1896, <http://academics.triton.edu/faculty/fheitzman/tallofficebuilding.html> (accessed 11 April 2010).
- Sweeney, Patrick C., *A Primer for: Guidance for Employment of the Force (GEF), Joint Strategic Capabilities Plan (JSCP), the Adaptive Planning and Execution (APEX) System, and Global Force Management (GFM)*, 14 May 2008, reproduced by U. S. Army Command and General Staff College School of Advanced Military Studies AMSP Course 1, "Strategic Decision Making and Joint Planning," Fort Leavenworth, KS, July 2008.
- U.S. Department of Defense. *2008 National Defense Strategy*. Robert M. Gates, Secretary of Defense. Washington, DC, June 2008.
- _____. *Quadrennial Defense Review Report*, Donald Rumsfeld, Secretary of Defense. Washington, DC, 6 February 2006.
- _____. *Quadrennial Defense Review Report*, Robert M. Gates, Secretary of Defense. Washington, DC, 1 February 2010.
- _____. *Capstone Concept for Joint Operations*, Version 3.0, Admiral Michael G. Mullen, Chairman of the Joint Chiefs of Staff. Washington, DC, 15 January 2009.
- _____. Department of the Army, Combat Studies Institute. Leavenworth Papers No. 16, "Deciding What Has to be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations," by Major Paul H. Herbert. Fort Leavenworth, KS, June 1988.
- _____. Department of the Army, Combat Studies Institute. *The Brigade: A History, Its Organization and Employment in the U. S. Army* by John J. McGrath. Fort Leavenworth, KS, June 2004.
- _____. Department of the Army, Combat Studies Institute. Report Number 14, *Sixty Years of Reorganizing for Combat: A Historical Trend Analysis*. Fort Leavenworth, KS, December 1999.
- _____. Department of the Navy, Headquarters United States Marine Corps. Marine Corps Order 3000.18A, Subject: MARINE CORPS FORCE DEPLOYMENT PLANNING AND

- EXECUTION PROCESS MANUAL, (SHORT TITLE: FDP&E MANUAL).
Washington, DC, 4 May 2009.
- _____. Headquarters, Department of the Army. *Army Mobilization Operations Planning and Execution System (AMOPES)*. Washington, DC, 22 February 2008.
 - _____. Headquarters, Department of the Army. All Army Activities (ALARACT) message 324-2009, 1st Quarter FY 10 FORSCOM ARFORGEN Training Support and Resource Conference (TSRC) and Reset Support and Resourcing Conference (RSRC), Washington, DC, 24 November 2009.
 - _____. Headquarters, Department of the Army. *The Army Posture Statement, 1997 – 2010*, <http://www.army.mil/info/institution/posturestatement/> verified 15 March 2010.
 - _____. Headquarters, Department of the Army. Chief of Staff, Army (CSA) White Paper, 071107. Washington, DC, no date.
 - _____. Headquarters, Department of the Army. Deputy Chief of Staff, G8, *Army Modernization Plan—2005*. Lieutenant General David F. Melcher, G8. Washington, DC, February 2005.
 - _____. Headquarters, Department of the Army. Deputy Chief of Staff, G8, *Army Modernization Plan—2006*. Lieutenant General David F. Melcher, G8. Washington, DC, March 2006.
 - _____. Headquarters, Department of the Army. Deputy Chief of Staff, G8, *Army Modernization Plan—2007*. Lieutenant General Stephen M. Speakes, G8. Washington, DC, 5 March 2007.
 - _____. Headquarters, Department of the Army. Deputy Chief of Staff, G8, *Army Modernization Strategy—2008*. Lieutenant General Stephen M. Speakes. Washington, DC, 2008.
 - _____. Headquarters, Department of the Army. Deputy Chief of Staff, G8, *2009 Army Modernization White Paper*, Washington, DC, 2009, accessed online at http://www.bctmod.army.mil/news/pdf/Army_Modernization_White_Paper.pdf, verified 31 March 2010.
 - _____. Headquarters, Department of the Army. Execution Order: Reset Rehearsal of Concept Drill (FY 09), Pentagon, Washington, DC, 25 March 2009.
 - _____. Headquarters, Department of the Army. Field Manual 1, *The Army*, 14 June 2005.
 - _____. Headquarters, Department of the Army. Field Manual 7-0, *Training for Full Spectrum Operations*, 12 December 2008.
 - _____. Headquarters, Department of the Army. United States Army Forces Command PowerPoint brief, “ARFORGEN Overview—III Corps Plans Brief,” 10 December 2009, provided by Lieutenant Colonel Jeffery A. Hammond, U. S. Army FORSCOM G-3/5/7 Staff Officer.
 - _____. Joint Warfighting Center, United States Joint Forces Command. *“Joint Operations Insights & Best Practices-2nd Edition,”* Gary Luck and Mike Findlay, Norfolk, VA, July 2008.
 - _____. 101st Airborne Division (Air Assault) and Fort Campbell, Kentucky Information Brief DRAFT, “Operation Keystone 10-13,” prepared by the Mission Support Element G3, Fort Campbell, Kentucky, 26 March 2010.
- U.S. Government Accountability Office. Testimony Before the Subcommittee on Tactical Air and Land Forces, Committee on Armed Services, House of Representatives, *“Force Structure: Restructuring and Rebuilding the Army Will Cost Billions of Dollars for*

Equipment but the Total Cost Is Uncertain,” Statement of Janet A. St. Laurent, Managing Director, Defense Capabilities and Management. Washington, DC, 10 April 2008.

Wilson, John B., U.S. Army Center of Military History Publication 60-14, Army Lineage Series, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, Washington, DC, 2 February 1998, available online at <http://www.history.army.mil/books/Lineage/M-F/index.htm>, verified 12 February 2010.